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09/990,601	11/21/2001	John E. Krech	57135US002	3879

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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,601

Applicant(s)

KRECH ET AL.

Examiner

Walter B. Aughenbaugh

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,32-37,46-53 and 55-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30,32-37,46-53 and 55-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/06/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. New claims 63-65 presented in the Amendment filed September 2, 2005 (Amdt. G) have been received and considered by Examiner.

REPEATED REJECTIONS

Claim Rejections - 35 USC § 103

2. The 35 U.S.C. 103 rejections of claims 30, 32-37, 46-53 and 55-61 that were repeated in paragraph 3 of the previous Office Action mailed June 2, 2005 have been repeated for the reasons previously made of record.
3. The 35 U.S.C. 103 rejection of claim 62 that was repeated in paragraph 4 of the previous Office Action mailed June 2, 2005 has been repeated for the reasons previously made of record.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

4. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Endo et al.

Oishi et al. teach a plastic article (i.e. a part or component of transportation equipment or a container, col. 69, lines 1-3) comprising a composition comprising a blend of a polyolefin resin and a thermosetting resin (col. 29, lines 3-6 and 13-14) and a diguanamine flame retardant that is a non-halogenated flame retardant where all of the resins are free of halogen (col. 19, lines 1-5 and 10-11) and where all of the flame retardant(s) (i.e. the diguanamine flame retardant) are selected only from the group consisting of non-halogenated flame retardants as claimed. Oishi et al. teach that the polyolefin resin is a fully prepolymerized uncrosslinked hydrocarbon polyolefin

Art Unit: 1772

resin (e.g. styrene, polyethylene, polypropylene, polybutylene, poly-3-methylbutene, col. 29, lines 7-9 and 13-15), and the thermosetting resin of Oishi et al. is necessarily curable since it is a thermosetting resin.

Oishi et al. fail to explicitly teach that the plastic article (i.e. the part or component of transportation equipment or container) is a pallet and the claimed relative amounts by weight of the polyolefin and thermosetting resins.

Endo et al., however, teach a resin composition comprising a flame retardant (col. 37, lines 61-64) that is formed into a container or a pallet (col. 7, lines 38-39). Therefore, since a pallet is both a part or component of transportation equipment and a container (Applicant characterizes a pallet as a container at line 14 of page 1 of Applicant's specification), one of ordinary skill in the art would have recognized to have formed the part or component of transportation equipment or container of Oishi et al. in the form of a pallet since it is well known to form flame retardant containing plastic pallets as taught by Endo et al.

Since Oishi et al. teach that the polyolefin resin and the thermosetting resin are blended (col. 29, lines 3-6 and 13-14), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the relative amounts of the polyolefin and thermosetting resins in the blend depending on the particular desired end result

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the part or component of transportation equipment or container of Oishi et al. in the form of a pallet since it is well known to form flame retardant containing plastic pallets as taught by Endo et al.

Art Unit: 1772

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the container of Oishi et al. in the form of a pallet since it is well known to form flame retardant containing plastic pallets as taught by Endo et al.

5. Claims 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Endo et al. and in further view of Juhanson.

Oishi et al. and Endo et al. teach the pallet as discussed above in this Office Action.

In regard to claim 64, Oishi et al. and Endo et al. fail to teach that the pallet further comprises a friction material laminated adhesive-free to at least one surface of the pallet. Juhanson, however, disclose a container having a high friction pad attached to the bottom of the container to provide a non-skid surface to the bottom of the container (col. 2, lines 39-45). Therefore, one of ordinary skill in the art would have recognized to have laminated the high friction pad of Juhanson to the bottom of the pallet of Oishi et al. and Endo et al. in order to provide a non-skid surface to the bottom of the container (i.e. pallet) as taught by Juhanson.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have laminated the high friction pad of Juhanson to the bottom of the pallet of Oishi et al. and Endo et al. in order to provide a non-skid surface to the bottom of the container (i.e. pallet) as taught by Juhanson.

In regard to claim 65, Oishi et al., Endo et al. and Juhanson teach the pallet as discussed above in this Office Action. Juhanson teach that the container has molded members (depressions) and that the molded members comprise in-mold applied friction material (high friction pad) on one surface of the molded members (col. 2, lines 42-45). Therefore, one of ordinary skill in the art would have recognized to have formed depressions in the bottom of the pallet taught by Oishi

Art Unit: 1772

et al. and Endo et al. and to have attached the high friction pad of Juhanson to the bottom of the pallet, including the depressions, taught by Oishi et al. and Endo et al. in order to provide a non-skid surface to the bottom of the container (i.e. pallet) as taught by Juhanson.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed depressions in the bottom of the pallet taught by Oishi et al. and Endo et al. and to have attached the high friction pad of Juhanson to the bottom of the pallet, including the depressions, taught by Oishi et al. and Endo et al. in order to provide a non-skid surface to the bottom of the container (i.e. pallet) as taught by Juhanson.

Response to Arguments

6. Applicant's arguments presented on pages 8-15 of Amdt. G regarding the 35 U.S.C. 103 rejection of claims 30, 32, 34-37, 47, 49-53, 55 and 57-62 have been fully considered but are not persuasive.

On page 9 of Amdt. G, Applicant argues that Oishi does not link "transportation equipments" with "containers". There is no explicit link between the two; however, a pallet is a piece of transportation equipment, and under Applicant's definition of "pallet", a pallet is a container (page 1, line 14 of specification), so pallets fall within the scope of articles taught by Oishi. Oishi does not explicitly teach a pallet, but Oishi need not explicitly teach a pallet, since pallets fall within the scope of articles taught by Oishi, and Oishi's teachings of both "transportation equipments" and "containers" motivate one of ordinary skill in the art to look to Endo as proposed in the 35 U.S.C. 103 rejection of record. The teaching of Oishi of a "part or component of transportation equipment" (col. 69, lines 1-3) does suggest a pallet to one of

Art Unit: 1772

ordinary skill in the art (Endo establishes that the pallet structure is a well known structure to those of ordinary skill in the art).

Applicant argues that blends of a polyolefin resin and a thermosetting resin is not explicitly taught by Oishi at col. 29, lines 1-6, but the Office maintains its position that blends of a polyolefin resin and a thermosetting resin are taught by the plain language of col. 29, lines 1-6, although, polyolefin resins are not explicitly taught until col. 29, lines 13-14, but polyolefin resins clearly fall under the category of “thermoplastic resins” recited at col. 29, line 3.

On page 10 of Amdt. G, Applicant’s arguments regarding rubber-modified resins are moot because Oishi plainly teaches blends of a polyolefin resin and a thermosetting resin at col. 29, lines 1-6 and 13-14 not even taking into consideration whether or not rubber-modified resins are blends of rubber and the resin that is modified by the rubber. Applicant stresses that thermoplastic elastomers are thermoplastic, but Oishi does not limit its elastomers to thermoplastic elastomers, so thermosetting elastomers are necessarily included within the scope of Oishi’s teachings of “rubbers”. Thermoplastic elastomers, by definition, have both thermoplastic and elastomeric domains, so thermoplastic elastomers have both thermoplastic and thermosetting domains. Rubbers can only be considered thermoplastic when they are thermoplastic elastomers (this fact is supported by both dictionary definitions Applicant has supplied).

On page 11 of Amdt. G, Applicant argues that Oishi does not suggest a pallet, but, although there is no explicit link between the “transportation equipments” and “containers” at col. 69, lines 1-3, a pallet is a piece of transportation equipment, and under Applicant’s definition of “pallet”, a pallet is a container (page 1, line 14 of specification), so pallets fall within the

Art Unit: 1772

scope of articles taught by Oishi, and Oishi therefore “suggests” any article that falls within the scope of Oishi’s teachings. Oishi does not explicitly teach a pallet, but Oishi need not explicitly teach a pallet, since pallets fall within the scope of articles taught by Oishi, and Oishi’s teachings of both “transportation equipments” and “containers” motivate one of ordinary skill in the art to look to Endo as proposed in the 35 U.S.C. 103 rejection of record. There is no outstanding 35 U.S.C. 102 rejections of any of the claims as being anticipated by Oishi.

Applicant’s arguments regarding rubber-modified resins are moot because Oishi plainly teaches blends of a polyolefin resin and a thermosetting resin at col. 29, lines 1-6 and 13-14 not even taking into consideration whether or not rubber-modified resins are blends of rubber and the resin that is modified by the rubber. Examiner agrees that col. 29, lines 55-56 is not a repetition of what is stated at col. 29, lines 1-6 (col. 29, lines 55-56 further defines the scope of compositions set forth by Oishi’s use of the term “thermoplastic resin”), but this fact does not affect the rejection of record: Oishi plainly teaches blends of a polyolefin resin and a thermosetting resin at col. 29, lines 1-6 and 13-14.

In regard to Applicant’s discussion on pages 11-12 of Amdt. G regarding claim 59, as indicated in the rejection of this claim, the scope delineated by Applicant’s originally filed definition of “semi-interpenetrating polymer network” includes polymer blends. Applicant’s discussion on pages 9-10 of Amdt. F supports this position: Applicant describes a semi-interpenetrating polymer network as “having one polymer interwoven with the other”, and this cited phrase describes many polymer blends.

On page 12 of Amdt. G, Applicant argues that Oishi does not link “transportation equipments” with “containers”. There is no explicit link between the two; however, a pallet is a

Art Unit: 1772

piece of transportation equipment, and under Applicant's definition of "pallet", a pallet is a container (page 1, line 14 of specification), so pallets fall within the scope of articles taught by Oishi. Oishi does not explicitly teach a pallet, but Oishi need not explicitly teach a pallet, since pallets fall within the scope of articles taught by Oishi, and Oishi's teachings of both "transportation equipments" and "containers" motivate one of ordinary skill in the art to look to Endo as proposed in the 35 U.S.C. 103 rejection of record. There is no outstanding 35 U.S.C. 102 rejections of any of the claims as being anticipated by Oishi. The teaching of Oishi of a "part or component of transportation equipment" (col. 69, lines 1-3) does suggest a pallet to one of ordinary skill in the art (Endo establishes that the pallet structure is a well known structure to those of ordinary skill in the art).

Regarding claims 49 and 50, the claims stand rejected for the reasons stated in the rejection of record: they are not allowed.

On pages 12-13 of Amdt. G regarding the 35 U.S.C. 103 rejection of claim 33, Applicant argues that the term "structural" should be construed according one particular definition of the term, but the application as originally filed does not limit the term "structural" to the definition to which Applicant refers. The definition of "structural" to which Applicant refers is not the only definition of "structural".

Applicant's arguments that Oishi does not teach a "flame-retardant polyolefin/thermoset blend useful as a transportation container" are unsupported. Applicant only refers to the "transportation equipments" teaching of Oishi. A pallet is a piece of transportation equipment, and under Applicant's definition of "pallet", a pallet is a container (page 1, line 14 of specification), so pallets fall within the scope of articles taught by Oishi. Oishi does not

Art Unit: 1772

explicitly teach a pallet, but Oishi need not explicitly teach a pallet, since pallets fall within the scope of articles taught by Oishi, and Oishi's teachings of both "transportation equipments" and "containers" motivate one of ordinary skill in the art to look to Endo as proposed in the 35 U.S.C. 103 rejection of record. The teaching of Oishi of a "part or component of transportation equipment" (col. 69, lines 1-3) does suggest a pallet to one of ordinary skill in the art (Endo establishes that the pallet structure is a well known structure to those of ordinary skill in the art).

In regard to Applicant's discussion regarding the phrase "the pallet of Oishi et al. and Endo et al.", this phrase refers to the pallet taught by the proposed combination of Oishi and Endo in the 35 U.S.C. 103 rejection of record. The record makes it very clear that the Office recognizes that Oishi does not explicitly teach pallet (the word pallet does not appear in Oishi). A two-layer pallet, which has one coating layer, is not excluded from the scope of Applicant's claims. A pallet is a piece of transportation equipment, and under Applicant's definition of "pallet", a pallet is a container (page 1, line 14 of specification), so pallets fall within the scope of articles taught by Oishi. Oishi does not explicitly teach a pallet, but Oishi need not explicitly teach a pallet, since pallets fall within the scope of articles taught by Oishi, and Oishi's teachings of both "transportation equipments" and "containers" motivate one of ordinary skill in the art to look to Endo as proposed in the 35 U.S.C. 103 rejection of record. The teaching of Oishi of a "part or component of transportation equipment" (col. 69, lines 1-3) does suggest a pallet to one of ordinary skill in the art (Endo establishes that the pallet structure is a well known structure to those of ordinary skill in the art).

Applicant's statement that "Oishi et al. means blends of more than one thermoplastic resin or blends of one or more thermosetting resins" is not supported in Oishi. Oishi plainly

Art Unit: 1772

teaches blends of a polyolefin resin and a thermosetting resin at col. 29, lines 1-6 and 13-14.

Applicant's use of the words "means" indicates that this is speculation.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 571-272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter B. Aughenbaugh

09/19/05

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HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

9/19/05